

Application No.:10/692,588

Docket No.: JCLA10198

REMARKS**Present Status of the Application**

The Office Action rejected all presently-pending claims 1-14. Specifically, the Office Action rejected claims 1-5 and 7-14 under 35 U.S.C. 102(a) as anticipated by or, in alternative, under 35 U.S.C. 103(a) as obvious over Applicants' admitted prior art (AAPA). The Office Action also rejected claims 6 and 11 under 35 U.S.C. 103(a) as being unpatentable over AAPA alone or in view of Hatwar et al. (U.S. Patent No. 6,676,990). Applicants have amended claims 1 and 7 to more explicitly describe the claimed invention. No new matter has been added to the application by the amendments made herein. After entry of the foregoing amendments, claims 1-14 remain pending in the present application, and reconsideration of those claims is respectfully requested.

Discussion of Office Action Rejections

The Office Action rejected claims 1-5 and 7-14 under 35 U.S.C. 102(e) as anticipated by or, in alternative, under 35 U.S.C. 103(a) as obvious over AAPA. Applicants respectfully traverse these rejections but have amended claims 1 and 7 to clearly define the method according to the present invention.

Independent claims 1 and 7 recite the features as follows:

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Claim 1. An evaporation method, comprising:

providing a substrate, wherein the substrate is rotating along an axis at the center of the substrate and perpendicular to a plane of the top surface of the substrate;

defining a circular trace on the plane of the top surface of the substrate by using the center of the substrate as the center of the circular trace;

providing a heater right under a point on the circular trace;

providing a source supplying device, wherein the source supplying device supplies a metal wire as an evaporation source along a source supplying direction to a source evaporation point on the heater;

adjusting the source supplying direction of the source supplying device so that a projection of the source supplying direction on the plane of the substrate coincides with the tangent of the circular trace at the point on the circular trace; and

heating the evaporation source by the heater for evaporation.

(Emphasis added)

Claim 7. (currently amended) An evaporation apparatus for depositing a film on a substrate, the evaporation apparatus comprising:

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a rotator driving the substrate to be rotating along an axis at the center of the substrate to define a circular trace on a plane of the top surface of the substrate by using the center of the substrate as the center of the circular trace;

a heater, disposed right under a point on the circular trace, wherein the heater has a source evaporation point thereon; and

a source supplying device, disposed over the heater, wherein the source supplying device supplies a metal wire as an evaporation source along a source supplying direction to a source evaporation point on the heater and a projection of the source supplying direction on the plane of the substrate coincides with the tangent of the circular trace at the point on the circular trace.

(Emphasis added)

Applicants submit that claims 1 and 7 patently define over the cited arts for at least the reason that the cited art fails to disclose at least the features emphasized above.

In the present invention, as shown in Figs. 3 and 4, the source supplying device 230 supplies a metal wire as an evaporation source along a source supplying direction S directly onto a source evaporation point (one of points A, B and C shown in Fig. 4) on the heater 220 (paragraph [0017]). Notably, a projection of the source supplying direction S on the plane of the substrate 20 coincides with the tangent of the circular trace 300 at the point on the circular trace 300.

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However, AAPA fails to teach or suggest that the projection of the source supplying direction on the plane of the substrate coincides with the tangent of the circular trace at the point on the circular trace. Instead, AAPA merely discloses that the projection of the source supplying direction on the plane of the substrate substantially points at the center of the substrate 10 (as shown in Fig. 2). That is, AAPA fails to point out the detail installation of the source supplying device recited in claims 1 and 7. Hence, claims 1 and 7 are not anticipated by AAPA. In addition, Applicants submit that people skill in the art would not motivate to modify the installation of the source supplying device recited in AAPA without further teaching or suggestion. Therefore, Applicants respectfully submit that AAPA neither anticipates the present invention nor legally renders the present invention unpatentable.

For at least the foregoing reasons, Applicants respectfully submit that independent claims 1 and 7 patently define over the applicants' admitted prior art (AAPA), and should be allowed. For at least the same reasons, dependent claims 4-6 and 10-13 patently define over AAPA as well.

The Office Action further rejected claims 6 and 11 under 35 U.S.C. 103(a) as being unpatentable over AAPA alone or in view of Hatwar et al. (U.S. Patent No. 6,676,990). Applicants respectfully traverse the rejection for at least the reasons set forth below.

Since claims 6 and 11 are dependent claims which further define the invention recited in claims 1 and 7 respectively, Applicants respectfully assert that these claims also are in condition for allowance according to the same reasons as discussed above for the rejections 102(a) and 103(a). Thus, reconsideration and withdrawal of this rejection are respectively requested.

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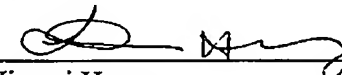
CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-14 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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